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ABSTRACT

Research on the effects of two modes of sentence combining instruction on writing skills was conducted from 22 September through 17 December 1976, at Evans School in Tempe, Arizona. Subjects were 40 students in two fifth grade classes designated the individualized class and the group class. The individualized class followed a sentence combining curriculum using a program of self-study constructed with the following components: (1) a brief reading for each lesson, establishing the context for the introduction of the sentence-combining exercises, (2) comprehension questions, which were used to provide a check of the adequacy of students' reading of the material, (3) sentence-combining exercises, and (4) sentence-decomposing exercises. The group class followed the same curriculum, but the sentence-combining exercises were presented in a slightly different form: (1) choral reading of a prose selection, (2) presentation of the concept for practice through the use of blackboard examples, (3) choral practice of sentence combining, and (4) writing of combined sentences from oral cues. The two teachers involved in the study rotated during the project. The results indicated that scores from writing samples, which included mean length of T-units and mean number of multiclause T-units compared to single-clause T-units, favored the group class. No significant differences existed between the two groups on reading scores obtained by a miscue analysis. (HKM)

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Sentence Combining and Reading

This research was conducted from Sept. 22 through Dec. 17, 1976 at Evans School in the Tempe Elementary School district involving 40 students in two fifth grade classes. These two classes, henceforth designated as the individualized class and the group class, were exposed to two different modes of instruction in sentence combining. The individualized class followed the sentence combining curriculum using a program of self study constructed with the following components:

1. A brief reading for each less establishing the context for the introduction of the sentence combining exercises.
2. Comprehension questions which were used to provide some check on the students' adequate reading of the material.

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3. Sentence combining exercises.

4. Sentence decomposition exercises.

(Items under (4) are the reverse of items under (3).)

The exercises for the individualized class were in the following form -- the reading and comprehension exercises have been cut to preserve space:

Sept. 27, 1976, p. 1 THE LEGEND OF SLEEPY HOLLOW Name _____

Step 1: Read the page for Sept. 27 about the Legend of Sleepy Hollow.

Step 2: Answer the questions about what you have just read by putting a check mark in the space in front of the correct statement.

1. When Ichabod Crane sang in church, his voice:

_____was the loudest of them all.

_____could not be heard because he was so thin and weak.

_____resembled the peculiar sounds which were heard in church during the service or during the sermon.

Step 3: Join the sentences below in the same way that the example sentences have been joined.

Example: Ichabod had a voice. The voice was loud. The voice was harsh.

Ichabod had a loud and harsh voice.

1. He taught his students to sing. His students were young. His students were bright.

_____

* * *

Step 4: Break the sentences down into smaller sentences. Write the smaller sentences. The first one is done for you.

1. He fell in love with a young and beautiful woman.

_____
_____
_____

_____
_____
_____

The group class followed the same curriculum but the sentence combining exercises were presented to them in a slightly different form:

1. Choral-oral reading of a prose selection to establish a context for practice.
2. Presentation of the concept for practice through the use of blackboard examples
3. Choral-oral practice of sentence combining.
4. Writing of combined sentences from oral cues.

Step (1) utilized the same reading selection in both classes; step (4) utilized three sentences practiced in step (3), which customarily employed ten set of sentences such as the following:

1. He taught his students to sing.

   His students were young.

   His students were bright.

2. She cooked a dinner.

   The dinner was tasty.

   The dinner was hot.

3. The teacher was a man.

   The man was good.

   The man was clever.

(From the above, sentences such as the following are produced: He taught his bright young students to sing.)

Two teachers were involved in the project from its inception. For the first four weeks, Teacher A was in charge of the individualized class and Teacher B was in charge of the group class. This was rotated so that the reverse was true for the second four weeks. Two more rotations were scheduled but cancelled when various classes were pre-empted by parties and, for the last two weeks, an Indian Art Specialist who was assigned class time normally alloted to the sentence combining project.

In any case, the curriculum included the following:

Sept. 27. Embedding a series of two adjectives in the noun phrase.

Cue sentences	On-cue sentence
Ichabod had a voice.	Ichabod had a loud harsh voice.
The voice was loud.	
The voice was harsh.	

Sept. 29 Embedding a series of three adjectives in the noun phrase.

She had dresses.	She had beautiful long
The dresses were long.	flowing dresses.
The dresses were flowing.	
The dresses were beautiful.	

Oct. 4 Embedding of adverbial clause in sentence initial position.

Ichabod entered the house.	When Ichabod entered the house,
He became restless.	he became restless.

Oct. 6 Embedding of adverbial clause in initial position with subject deletion.

Ichabod was interrupted at school.	While teaching the students, Ichabod was interrupted at school.
Ichabod was teaching the students.	

Oct. 11 Embedding of adverbial clauses in final position.

Ichabod was filled with good cheer.	Ichabod was filled with good cheer while he was eating at the table.
He was eating at the table.	

Oct. 13. Embedding of adverbial clause in final position together with subject deletion.

Ichabod lost control.	Ichabod lost control
Ichabod was whipping the old horse.	while whipping the old horse.

Oct. 18 Deriving sentence initial participial phrase from an embedded WH-clause.

Ichabod, frightened by the monster, whipped his horse.	Frightened by the monster, Ichabod whipped his horse.

Oct. 20 Shifting sentence initial participial phrases to sentence final position for the creation of a cumulative sentence.

Trampled by the horse, the saddle lay on the ground.	The saddle lay on the ground, trampled by the horse.

Nov. 1 Extraposition of infinitival complement.

To rest in the day was necessary.	It was necessary to rest in the day.

Nov. 3 Embedding of gerundive complement in initial position.

It is pleasant. They are talking at work.	Talking at work is pleasant.

Nov. 8 Embedding of WH-clause with ING to extraposed infinitival complement.

It is interesting to watch fishermen. The fishermen are bragging about fish.	It is interesting to watch fisherman who are bragging about fish.

Nov. 15 WH-word and BE deletion in clause embedded to noun in extraposed infinitival complement.

It was fun to watch the man who was catching the snow-storm.	It was fun to watch the man, catching the snowstorm.

Nov. 17 Embedding of WH-clause with ING form and LY form to noun in extraposed infinitival complement.

It was nice to admire the rugs. The rugs were woven skillfully. → It was nice to admire the rugs which were woven skillfully.

Nov. 19 WH-word and BE deletion in clause embedded to object noun.

I found the old man who was sleeping by the stove. → I found the old man sleeping by the stove.

(In the first exercises, the order of presentation was changed for the two groups to see if, in fact, a differing order of presentation would effect the manner in which the students processed the sentences in the exercises.)

Students were required to write a free composition after viewing a short film (Whose Garden Was This?) as a pretest on Sept. 14 after the procedure described in Miller and Ney (1968: 46). The same film was then scheduled for a re-showing on Dec. 17 so that students would then write a post test composition which then would be compared with the pretest composition. Due to the failure of the university audio-visual services to deliver the film on the date required, the film A Chairy Tale was substituted and the film Whose Garden was This? was rescheduled for a post test on Jan. 17. These pretests and post tests were analyzed for measures which have become customary in this kind of research such as the mean length of T-units and mean number of multi-clause T-units as compared to single clause T-units as indices of measures of frowth in writing. These measures are summarized in Table 1:

All of the scores in Table I were checked for an analysis of covariance using the procedure outlined in B. J. Winer, Statistical Principles in Experimental Design (New York: McGraw-Hill, 1971), chapter 10. Although the difference in the means between the new students and the old students in the Group class was fairly large for this measure (1.2 as opposed to .7), this difference did not prove to be statistically significant. The greatest number of scores which proved to be significant at or below the .05 level of significance were found in a comparison of the Group and Individualized students in a comparison of the pretest using Whose Garden is this (Sept. 17) with the posttest using A Chairy Tale. The scores are reproduced below in Table II.

Insert Table II About Here

All but one of the scores, the scores for adverb clauses in initial position, favor the group class. At this point, the source of the significant differences could be attributed to two possible factors: (1) the difference of instruction between the two classes, or (2) the tendency of skills learned in the sentence combining exercises to atrophy or decay after

a period of time. (For this concept, see Warren Combs (1976: 10).) Thus the students in the group class, when they did the first pretest, were fresh from the exercises and did quite well, but when they were retested after a month, they had lost some of the abilities gained in the experimental class and thus made scores similar to those of the students in the individualized class. In either case, the mode of sentence combining which differed between the two classes would seem to be the crucial factor. The oral-to-written mode of the group class seemed in fact to produce superior results even though these results did not persist until the second posttest.

To ascertain if the experimental methodology effected the reading behavior of students in the project, members of both the group class and the individual class provided samples of recorded reading which were latter subjected to miscue analysis after the procedures established by Goodman (1965) and Goodman and Burke (1972). Since use of the miscue analysis in this project was not designed as a diagnostic tool to determine the nature of the reading behavior of the students as a step in prescribing strategies for instruction but as measure of students ability, departures were made from the usual administration of the miscue inventory and subsequent analysis. In the first place, since the results of the miscue analysis were

to be used to determine whether one group of students was better than another, the attempt was made to have all students read the same passage. (This use of miscue analysis is not too different from that of Carder (1974) who compared two different groups of readers.) For the most part, students read "The Naming of the Tree" from the Goodman and Burke Kit. Because of recording difficulties the reading selection of five students had to be repeated; rather than having them read the same passage twice, on the re-recording, these five students read the selection titled "Zoo Doctor." Of the 36 students for whom recorded reading selections exist, 18 in each group, two of the readers of Zoo Doctor were in the individualized class and three were in the group class.

The miscues were then analyzed according to the aforementioned procedures of Goodman (1969) and Goodman and Burke (1972). Since it has already been established that the number of miscues per hundred words of text read is not a good indicator of reading ability, miscues were analyzed according to type and ranked as either preserving the syntax and the semantics of the original text or not preserving the syntax and the semantics of the original text. These miscues then were studied in two different modes: (1) Those that were not corrected through a reader induced regression and (2) those that were corrected through a reader induced regression. The means of the raw scores of these analyses are seen in Table III.

Insert Table III About Here

From the above it would appear that the Individualized class is composed of slightly better readers than the Group class since members of the individualized class as a whole made better miscues than the group class, that is, they were more likely to make miscues which preserved the syntax and the semantics of the original. To see if this in fact is true a score was computed for each individual by making a composite of each of the scores in Table III. This was done by computing the ratio of preserving miscues to non-preserving miscues, treating this ratio as a positive or negative integer (negative if the ratio of non-preserving miscues to preserving miscues is larger than the reverse) and finding a score on the basis of the following formula:

$$10 \times \frac{\text{Miscues per hundred words}}{10 + \text{Ratio} + \text{Difference between Ratio and Corrections}}$$

Thus, if a student has a very low MPHW but makes miscues which violate the semantics and syntax of the original without making corrections the score becomes quite large. One student made 1.2 MPHW having only 11 miscues, but 10 of these violated the syntax and semantics of the sentence, four of which were

corrected. Her score is:

$$10 \times \frac{1.2}{10 + (-10) + (+4)} = 10 \times \frac{1.2}{4} = 3.0$$

But if a student has only 11 miscues (as one did) and only 2 of these violate the syntax and semantics of the individual and one of these two is corrected, then the score is as follows:

$$10 \times \frac{1.4}{10 + 4.5 + 4.5} = 10 \times \frac{1.4}{19} = .7$$

(Since the scores are based on the miscues per hundred words, a perfect score would be zero; the numbers grow larger as the scores become higher.) The results of these tabulations are contained in Table IV.

Insert Table IV About Here

To see if in fact the scores on Table IV were the same or different from one another, a Pearson product moment correlation was performed. The scores of the oral group class correlated with the miscues per hundred words at .9388 and the scores of the individualized class correlated with the miscues per hundred words at .8616. Both values were well above the tabled values required for a significance level of .01. It is therefore safe to conclude that the scores do not measure differently

from the miscues per hundred words, generally considered to be weak measure of reading ability, although it would seem to this observer that, if all students read the same passage (as they did in this instance) the miscue per hundred word would be a fairly good estimate of reading ability. In any case, the Pearson product moment correlation of the scores of the individual class and the oral group class was .4503 and the correlation of the miscues per hundred words of the individualized and the oral group class was .5573. Neither value was significant at the .01 level of confidence. Similarly an Analysis of Variance was run between the scores and the miscues per hundred words. No significant differences existed between the two groups.

Group	Measure	Number of T-unit	Number of Words	Words per T-unit	Number of Single clause T-units	Words in single-clause T-units	Words per single-clause T-unit	Number of Multi-clause T-units	[illegible] Multi-clause T-units	[illegible] Multi-clause T-units	ING Complements	INF Complements	Adjective + Noun	Adj + Adj + Noun	Adverb Clause Initial Position	Adverb Clause Final Position	Noun Clause as Object	Relative Clause	Other
Group Class:	Pretest 1: Whose Garden was th[illegible]																		
n=11	New 6.5	53	8.4	5.7	41	7.8	.7	[illegible]	11.3	.6	.1	.4			.1		.3	
n=9	Old 6.6	56	8.4	5.4	41	6.3	1.2	[illegible]	14	.8	.2	.3		.1	.5	.4	.3	
Individualized																			
n=15	New 6.3	60	9.6	4.7	35	7.4	1.5	25	16.2	.4	.3	1.6		.06	.6	1	.5	
n=4	Old 5.4	62	12	3.4	30	8.8	2	32	16.2	.4	1.4	.8		.8	1	1	.2	.2
Group Class:	Posttest 2: Whose Garden was this?																		
n=13	New 5.2	60	12	3.5	33	9.3	1.6	27	17	1.2	.8	1.3	.2		.5	.7	.5	
n=10	Old 6.8	62	9	4.9	37	7.5	1.9	25	13	.6	.4	1.2	.2	.1	.8	.4	.3	
Individualized																			
n=13	New 4.2	45	11	2.9	22	7.8	1.4	23	17	.2	.1	1.3		.1	.2	.7	.1	.1
n=3	Old 4	32	7.9	3	22	7.2	1	10	10			1.3				.3	.6	
Group Class:	Posttest 1: Chairy Tale																		
n=12	New 8.3	91	11	5.8	47	8.2	2.6	44	17	1.1	1.6			.1	2.2	.1	.4	
n=11	Old 11	104	10	8.3	61	7.3	2.6	41	15	2	.3				2.4	.1	2.7	
Individualized																			
n=15	New 8.3	72	8.7	6.5	47	7.2	1.7	24	14	.9	1.6			.3	.9	.5	.3	
n=3	Old 4	46	12	3	29	9.7	1	17	17	.9	1.6			.9		.5		

TABLE II: Significant Difference in Scores Pretest I and Post-test I, Individualized Compared with Group

Number of T-Units	Means		Standard Deviations	
	Pretest	Posttest	Pretest	Posttest
Individualized	5.24	7.071	2.607	5.327
Group	6.278	10.722	3.304	4.212

	Sum of Squares	Mean Square	Degrees of Freedom	F-Ratio	Probability
A. Factors	86.652	86.652	1	3.857	.056
Error	651.526	22.466	29		

Number of Words	Means		Standard Deviations	
	Pretest	Posttest	Pretest	Posttest
Individualized	55.857	56.429	16.856	44.157
Group	52.056	106.333	22.462	30.108

	Sum of Squares	Degrees of Freedom	Mean Square	F-Ratio	Probability
A. Factors	20451.973	1	20351.973	14.904	.001
Error	39600.667	29	1365.540		

Total Number of Words in Single Clause T-Units	Means		Standard Deviations	
	Pretest	Posttest	Pretest	Posttest
Individualized	28.500	36.571	21.100	23.382
Group	42.111	77.500	20.402	65.800

	Sum of Squares	Degrees of Freedom	Mean Square	F-Ratio	Probability
A. Factors	16009.701	1	16009.701	5.980	.02
Error	77643.032		77643.032		

Number of Multi-Clause T-Units	Means		Standard Deviations	
	Pretest	Posttest	Pretest	Posttest
Individualized	1.643	1.357	1.151	1.447
Groups	.944	2.667	1.056	1.414

	Sum of Squares	Degrees of Freedom	Mean Square	F-Ratio	Probability
A Factors	13.504	1	13.504	6.618	.015
Error	61.214	30	2.040		

Words in Multi-Clause T-Units

	Means		Standard Deviations	
	Pretest	Posttest	Pretest	Posttest
Individualized	27.357	19.000	21.172	25.185
Group	13.611	42.167	22.120	24.520

	Sum of Squares	Degrees of Freedom	Mean Square	F-Ratio	Probability
A Factors	3624.651	1	3624.651	5.702	.02
Error	18435.638	29	635.712		

Infinitival Complements

	Means		Standard Deviations	
	Pretest	Posttest	Pretest	Posttest
Individualized	.500	1.214	.760	.975
Group	.278	2.667	.575	1.847

	Sum of Squares	Degrees of Freedom	Mean Square	F-Ratio	Probability
A Factors	17.348	1	17.348	7.229	.011
Error	69.592	29	2.400		

Adverb Clause Initial

	Means		Standard Deviations	
	Pretest	Posttest	Pretest	Posttest
Individualized	.071	.286	.267	.469
Group	.056	.000	.236	.000

	Sum of Squares	Degrees of Freedom	Mean Square	F-Ratio	Probability
A Factors	.653	1	.653	6.732	.014
Error	2.814	29	.097		

Adverb Clause Final

	Means		Standard Deviations	
	Pretest	Posttest	Pretest	Posttest
Individualized	.571	.714	.938	1.490
Group	.556	2.111	.922	1.676

	Sum of Squares	Degrees of Freedom	Mean Square	F-Ratio	Probability
A Factors	15.366	1	15.366	5.815	.021
Error	76.634	29	2.643		

Means in Table I are different from those in Table II since the means in Table I are computed for all students who took the test indicated. Means in Table II are computed only for the students who completed both Pretest I and Posttest I.

TABLE III: READING MISCUES OF INDIVIDUALIZED AND GROUP INSTRUCTION CLASSES

	TOTAL	Perserving Syntax and Semantics of Original	Non-Preserv-ing Syntax and Semantics of Original	Corrected Preserving Syntax and Semantics of Original	Corrected Non-Preserv-ing Syntax and Semantics of Original
Group Class n=18					
Miscues	632	310	322	293	286
Mean	35.1	17.2	17.8	16.2	15.8
Percent		49	51	50.6	49.4
Individualized class n=19					
Miscues	644	364	280	321	216
Mean	33.9	19.5	14.7	16.9	11.4
Percent		56.5	43.5	59.7	40.2

TABLE IV: SCORES OF STUDENTS ON MISCUE ANALYSIS AND MISCUES PER HUNDRED WORDS

Group Class			Individualized Class		
Subject	MPHW	Score	Subject	MPHW	Score
1	1.4	.7	1	1.4	.7
2	7.1	8.6	2	6.5	4.8
3	1.7	1.4	3	6.0	3.9
4	2.7	2.2	4	2.8	1.8
5	5.3	6.2	5	4.5	3.8
6	2.6	1.6	6	6.0	5.2
7	.3	.3	7	4.5	3.6
8	7.2	6.3	8	4.6	6.3
9	1.3	1.5	9	2.0	1.7
10	6.4	5.6	10	2.5	2.1
11	5.5	4.8	11	1.2	3.0
12	2.4	2.7	12	2.1	1.1
13	2.1	2.5	13	4.9	4.4
14	5.5	7.1	14	2.8	2.4
15	6.4	8.8	15	10.4	13.0
16	3.1	2.6	16	2.1	2.8
17	6.1	5.3	17	2.9	2.6
18	4.0	4.5	18	4.0	3.5
			19	1.1	.9
TOTAL	71.1	72.7		72.3	67.6
MEAN	3.9	4.0		4.0	3.5

Carder, Mary Elizabeth. 1974. A Comparison of Oral Reading Miscues of Poor Readers Assigned to Learning Disability Classes with Those Assigned to Remedial Reading Classes. Unpublished Ph.D. diss., University of Northern Colorado, 1974.

Combs, Warren E. 1976. Sentence Combining: Persistence of its Effects on Students' Quality of Writing. Athens, Ga.: Department of Language Education, The University of Georgia.

Goodman, Kenneth S. "Analysis of Oral Reading Miscues: Applied Psycholinguistics," The Reading Research Quarterly, 5(1969), 9-30.

Goodman, Yetta and Carolyn Burke. 1972. Reading Miscue Inventory (and Kit). New York: Macmillan.